THE REQUEST FOR APPROVAL OF DRAWING CHANGES

Applicant respectfully requests approval and entry of the following drawing changes, which are also reflected in the Replacement Sheet submitted herewith:

Fig. 1, please change reference number "16" referring to the "communication bus" to reference number --26--.

Fig. 1, in the box labeled reference number "48", please change from "datebase" to -- database --

REMARKS

At the time of the Office Action, claims 1-20 were pending in this patent application, of which claims 1, 9, 14 and 19 were independent. Claims 1, 4, 7, 11 and 14-16 and 18-19 are amended. As a result, claims 1-20 are pending and at issue in the application with claims 1, 9, 14 and 19 being independent claims.

Applicant respectfully traverses the objection to claim 7 and requests reconsideration and withdrawal of this objection. Pursuant to the Examiner's suggestion, claim 7 has been amended to depend from claim 6. Applicant thanks the Examiner for her careful reading of the claims.

Applicant respectfully traverses the objection to the drawings and requests reconsideration and withdrawal of this objection. Pursuant to the Examiner's suggestion, a Replacement Sheet for Fig. 1 is included herewith in which the reference number "16" referring to the "communication bus" has been changed to "26" to be in conformance with the description of this figure in the specification. In addition, the Replacement Sheet for Fig. 1 also contains a modification to the box labeled reference number "48", wherein "datebase" has been changed to "database." Despite these changes, no new matter has been added. Applicant respectfully requests approval and entry of these proposed drawing changes, and again thanks the Examiner for her careful review of the drawings and the specification.

Applicant respectfully traverses the rejections of claims 1-3, 5-6, 9, 10, 14, and 18-19 as anticipated by Perlman et al. (U.S. Pat. No. 6,023,585) ("Perlman"), respectfully traverses the rejection of claims 4 and 17 as obvious over Perlman in view of Sharpe, Jr. et al., U.S. Patent No. 5,960,214 ("Sharpe"), respectfully traverses the rejection of claim 7 as obvious over Perlman in view of Krivoshein et al., U.S. Patent No. 6,446,202 ("Krivoshein"), respectfully traverses the rejections of claims 8, 11-12, 15-16, and 20 as obvious over Perlman in view of Elg, U.S. Patent No. 6,694,354 ("Elg"), and respectfully traverses the rejection of claim 13 as obvious over Perlman in view of Elg and further in view of Sharpe. Applicant respectfully requests reconsideration and withdrawal of these rejections in light of the remarks provided below.

As amended, claims 1-8 recite a "method of updating a host application running on a host system in a process plant" wherein the host system is "connected to one of a plurality of process control devices used in the process plant." According to these claims, to update the host application, the host system sends a command to a device such as one of a set of *process control devices* to request a device description identification, which is subsequently received at the host system. The host system then downloads the appropriate device description into the host system using the device description identification, and the software updates the host application to include the device description. In a similar manner, claims 14-18 recite a computer system for updating *a process control* host application using the device description of a process control device wherein the computer system connects to a device description database. In this case, to update the host application, the software receives a device description identification for a process control device and then downloads the device description from the appropriate device description database using the device description identification. Finally, the software updates the host application with the device description. Generally speaking, none of the prior art discloses or suggests a method of obtaining a device description for a process control device to be used by a process control host application that includes receiving a device description identification for a process control device from a device and then downloading a device description for the process control device and updating the host application with the downloaded device description..

While Perlman generally discloses a method of updating a host application with device drivers in a WebTV system, Perlman does not disclose a method for use in a *process control system* and does not disclose a host system that communicates with or about a *process control device, such as a field device used in a process control system,* as required by each of claims 1-8 and 14-18. As a result, Perlman cannot anticipate any of claims 1-8 or 14-18. More particularly, Perlman discloses a method of updating a host application and device drivers in a WebTV system, which is not a method or a system used in any manner in a process control system of any type and is not a method or system used with respect to a process control host device connected to a plurality of process control devices used in a process plant, as recited by each of claims 1-8 and 14-18. Instead, Perlman is limited to a

WebTV client system that communicates with WebTV peripheral devices[1] (Perlman, col. 4, lines 20-25) through device codes using device drivers, all in a consumer based video system. Perlman specifically describes this communication method in the context of software used in the well-known WebTV system, which is not at all related to or even applicable to process control systems or to process control devices, such as field devices like valves, sensors, etc. Because the WebTV system of Perlman is not disclosed as being used in a process plant of any sort for any reason, the method in Perlman does not include a host system "connected to one of a plurality of process control devices used in the process plant," as recited by each of claims 1-8 or a "computer system for updating a process control host application using the device description of a process control device" as recited by claims 14-18. Instead, the WebTV host system described in Perlman is simply connected to peripheral devices, such as printers and other consumer based video system related devices, whereas independent claims 1 and 14 specifically recite that the host system is connected to one of a plurality of process control devices used in a process plant or that the host system includes the device description of a process control device. Applicants respectfully assert that the WebTV host system and peripheral devices described in Perlman are not the host system and process control device recited by claims 1-8 or claims 14-18. As a result, Perlman does not anticipate any of claims 1-8 or claims 14-18, and Applicant respectfully requests withdrawal of the rejections of these claims.

Moreover, Applicant respectfully submits that none of claims 1-8 or 14-18 would have been obvious over Perlman in view of any one or more of Sharpe, Krivoshein and Elg. While Sharpe and Krivoshein generally disclose the use of device descriptions within a process plant, neither of these patents discloses or suggests any manner of providing devices descriptions to a host device used in the process plant. Likewise, Elg is directed to a system for interfacing between host computers and peripheral devices in general computer systems, and is not at all concerned with or directed to communications within process plants. Moreover, Elg does not disclose a method of obtaining a device description of any kind by

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[1] Described as printers, mass storage devices, and additional data communication devices.

obtaining an indication of a device description from a field device or from a peripheral device of any sort. Instead, to the extent that the Sharpe, Krivoshein or Elg systems provide device descriptions to the host device, they presumably require the user to provide the device description from a user workstation (either directly or via a pointer) to the host device as part of the configuration process, which can lead to errors and increased workloads on the user. In any event, none of these cited patents discloses or suggests a method of automatically updating device descriptions within a process plant by requesting device description information from, for example, the field devices themselves, and then finding the device description within a separate device description database and downloading and updating the host application with the identified device description to enable the host application to fully communicate with the field device without user intervention, nor has the examiner cited Sharpe, Krivoshein or Elg for this purpose.

Moreover, the Federal Circuit developed a two-prong test for determining whether references are analogous to the subject patent. In order to be classified as an analogous piece of art, (1) the reference must be within the inventor's field of invention, and (2) the reference must be pertinent to the solution of the inventor's problem. *In re* Deminski, 796 F.2d 436 (Fed. Cir. 1986). The court in *Wang Laboratories, Inc. v. Toshiba Corp.*, 993 F.2d 858 (Fed. Cir. 1993), clarifies this two-prong test in a field of related subject matter (i.e., a case involving computer memory). Here the court held that, "the...art is not in the same field of endeavor as the claimed subject matter merely because it relates to memories." Although both the prior art and subject patents disclosed a method involving computer memory, the prior art dealt with memory circuits whereas the subject patents involved compact modular memory. The court held that memory circuits are not within the inventor's field of invention [compact modular memory] as memory circuits and compact modular memory are non-analogous because they serve different purposes within a computer system. Further, the court also held that the art "was not pertinent to the field of personal computers" because the subject patent did not mention "personal computers." Thus, *Wang* makes it clear that differences in even similiar technological fields are enough to prevent a subject patent from being invalidated on the basis of analogous art. In this case, differences exist between

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Perlman and the subject patent application, as Perlman is not at all related to or applicable to process control systems or to communication and device configuration activities that occur in process plants. Moreover, one skilled in the art of the present invention would not consider the WebTV system as being related to or useful in solving problems inherent in performing communications and configuration activities within a process plant. Similar to the holding in Wang, the device drivers of the WebTV system are not the device descriptions used in process plants (despite their similar sounding names), as device descriptions are highly specialized files that are much different than standard "device drivers" for generic computer peripheral devices such as printers and databases. In particular, the field devices within process plants are much more complicated, and use much different technology than simple peripheral devices used in the WebTV system, which is a consumer product based system. One skilled in the art would simply not look to a consumer product type of system to solve problems within the highly specialized area of process control plants, and thus would simply not consider Perlman. As a result, Perlman does not meet the standards of the Federal Circuit's two-prong test for non-analogous art, as Perlman is not within the inventor's field of invention (process controls) and is not pertinent to the solution of the inventor's problem (which involves device descriptions and device description identifications). As a result, Perlman is non-analogous art and, thus, any combination of Perlman with any of the other cited art is submitted to be legally inappropriate. For these reasons, applicants submit that Perlman, either alone or in any combination with Sharpe, Krivoshein or Elg, fails to render any of claim 1-8 and 14-18 obvious.

Additionally, each of claims 9-13 recites a "method of providing a software update for a host application running on a host system" wherein the host system sends a command to one of a set of devices to request a first device description identification, which identifies a first device description that is used to communicate with the first device. Importantly, the host system receives the first device description identification, and the host system then determines if the first device description is already present within a computer readable memory associated with the host system. If the host system does not include the first device description in the computer memory associated with the host system, the host system

downloads the appropriate first device description, and executes an update on the host application to include the first device description. None of the cited art, including Perlman, discloses or suggests a system in which a host system obtains an indication of a device description from a device and then first determines if the appropriate device description is contained within a host system memory prior to downloading the device description from an external source having that device description, as recited by each of claims 9-13.

Perlman generally discloses a method whereby an appropriate device driver is received, in all cases, from the remote processing system in response to the host device transmitting a device code (obtained by the host device from a peripheral device) to the remote processing system. (Perlman, col. 1, lines 61-64).[2] In fact, it is important to note that the Web TV host system of Perlman does not actually store any device drivers (other than possibly the device drivers for the peripheral devices currently attached to the WebTV system) on the actual host system itself (Perlman, col. 7, lines 61-63). As a result, the WebTV host system disclosed in Perlman does not attempt to first determine if it already contains a device driver associated with a device code received from a peripheral device stored within any type of computer readable memory, as the WebTV host system always assumes that it does not contain any such device drivers. In fact, it appears that the WebTV host, if connected to two peripheral devices that use the same device driver, would still download that device driver from the remote processing system two different times (i.e., when each of the two peripheral devices is connected to the system). Thus, Perlman merely discloses a system and method whereby the host is limited to locating the device driver from the remote WebTV server, and the Perlman system cannot operate without a connection from the WebTV client to the WebTV server and will not work if the WebTV server is not functioning properly.

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[2] In particular, the WebTV host system transmits the previously obtained device code to the WebTV server, which contains a database of device drivers for use within the WebTV system. The WebTV server then locates the appropriate device driver in memory, and transmits it back to the WebTV host system.

To the contrary, the method recited by claims 9-13 conducts an internal search for the device description within the host device before the host device looks to external sources to obtain the device description, thereby potentially saving time and download capacity. Moreover, in many cases, process control systems are not always connected to a remote source of device descriptions, in which case there can be a significant time delay between the time at which a field device is connected within the process plant and the time at which the host system is able to access a device description for that field device from an external or remote source. As a result, the method recited by claims 9-13 can significantly reduce the time it takes to configure a process plant or to configure new devices connected within the process plant, as in many instances, the host device may already have the required device description stored in a memory to be used with respect to another field device. Thus, the method recited by claims 9-13 provides a significant improvement over the manner in which Perlman and other cited art provide device information such as device drivers to a host system. In particular, the claimed method provides flexibility and saves time and effort for the user by enabling the host system to update the host application internally if the device description is located within the computer readable memory of the host system, but at the same time, allows the host system to obtain the appropriate device description from one of a CD-ROM, a diskette, or an online database or other external source if this device description is not already stored within the host device.

Moreover, neither Sharpe nor Elg discloses a system that searches a host system for a device description or even for a device driver prior to obtaining such a device description or device driver from a remote location. As a result, no combination of Perlman with Sharpe or Elg would produce the system or method recited by any of claims 9-13. Likewise, as noted above, Perlman is not applicable to and is not combinable with the Elg or Sharpe systems, as Perlman is non-analogous art. For these reasons, Applicant respectfully submits that claims 9-13 are allowable over the cited art of Perlman, Sharpe and Elg and therefore respectfully requests reconsideration and withdrawal of the rejections of claims 9-13.

Claims 19-20 recite a computer system for use in a process plant having a plurality of process control devices and one or more applications requiring communications with the

plurality of process control devices, wherein the computer system includes communication, storage, downloading, and updating modules that serve to request, store, download, and update appropriate device description identifications or device descriptions. Importantly, the computer system includes a search module, which searches for an appropriate device description database that stores the needed device description to allow the downloading module to download the needed device description to the host system. Neither Perlman nor Elg discloses or suggests a system in which a host system first obtains an indication of a device description from a device and that then uses a search module to search for external sources (databases) that store the needed device description.

As noted above, Perlman generally discloses a method whereby an appropriate device driver is received, in all cases, from the same remote processing system in response to the host device transmitting a device code (obtained by the host device from a peripheral device) to that remote processing system. (Perlman, col. 1, lines 61-64). In particular, the WebTV host system transmits the previously obtained device code to the WebTV server, which contains the database of device drivers for use within the WebTV system. The WebTV server then locates the appropriate device driver in this single memory, and transmits the device driver back to the WebTV host system. Thus, the WebTV host system does not need a search module to search for a database of device drivers because it always obtains the needed device driver from the same database, i.e., the one located at the remote processing system. The system recited by claims 19-20, on the other hand, includes a search module that is capable of locating a needed device driver from different sources by searching for these sources, which is important in the context of process control systems, where no database generally stores all possible device descriptions for all the different kinds, types and manufacturers of field devices and other process control devices. As a result, Perlman cannot anticipate claim 19.

Moreover, Elg does not disclose a system that searches for a database that stores device descriptions or device drivers, nor has the examiner cited Elg for this reason. As a result, no combination of Perlman with Elg would produce the invention recited by claim 20, and thus the combination of Perlman and Elg fails to render claim 20 obvious. For these
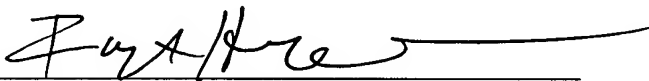
reasons, Applicant respectfully submits that claims 19-20 are allowable over the cited art of Perlman and Elg and therefore respectfully requests reconsideration and withdrawal of the rejections of claims 19-20.

Conclusion

For these foregoing reasons, Applicant submits that the pending application is in condition for allowance. Reconsideration and withdrawal of the rejections and allowance of the claims are therefore respectfully requested. If there are any additional fees or refunds required, the Commissioner is directed to charge or credit Deposit Account No. 13-2855 (30203/38289). A copy of this paper is included for this purpose.

Respectfully submitted,

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By: _____

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